PVC - e-chain® - fibre optic cable (FOC) for medium load requirements (class 4.2.2): oil-resistant.

Subject to misprints and errors. Technical modifications are possible at any time. Maybe older batches do not have all or other features. Please refer regarding the availability of the items especially the information in the latest chainflex® catalogue.

Core design:
- Optical fibre: Bending stable optical fibre made of glass (solid core element).
- Core identification: Coloured cores* with black marking: Fibre 1 & Fibre 2 (For details see construction table) *(62,5/125: Orange 50/125: Blue)
- Core insulation: Low smoke zero halogen (LSZH) subcable jacket.

Jacket design:
- Outer jacket: Low-adhesion mixture on the basis of PVC (following DIN VDE 0281-5), abrasion- and bending-stable, adapted to suit the requirements in e-chains®.
- • oil-resistant (following DIN EN 50365-4-1)
- • silicon-free (following PV 3.10.7 - status 1992)
- • lead-free (following 2011/65/EU (RoHS-II))
- • clean room ISO class 1 (following DIN ISO 14644-1 tested by IPA)
- • UV-resistance: Medium
- Colour outer jacket: Red lilac (similar to RAL4001)
- Cable marking (Black): "00000m"**   igus chainflex   CFLG.2EC.---

General mechanical values:
(for individual details see technical table)

| Guaranteed lifetime for this series according to the "chainflex® guarantee club" conditions (see chainflex® catalogue and www.igus.eu/chainflex-guarantee) |
|---|---|---|---|
| Double strokes* | 5 million | 7.5 million | 10 million |
| Temperature (from/to) [°C] | Travel distance (TD) | Min. bending radius for e-chain® use [Factor multiplied by outer diameter (d)] (Ex.: CFLG.2EC.50/125 at 20°C: 7,5 x 7,5 mm ⇒ Min. bending radius 56,25 mm) |
| +5 / +15 | ≤ 10 m | 10,0 | 11,0 | 12,0 |
| +15 / +60 | 7,5 | 8,5 | 9,5 |
| +60 / +70 | 10,0 | 11,0 | 12,0 |

** Length printing: Not calibrated. Only intended as an orientation aid.

Φ / Φ: Cable identification according to part no. (see technical table for details).

Ex.: CFLG.2EC.50/125 ⇒ chainflex CFLG.2EC.50/125 2x50/125 CE...

Temperature range:
- Min. bending radius for fixed installation: 10,0 x d 7,5 x d 6,8 x d 7,5 x d
- Torsion (at 1 m cable length): --- --- --- ---

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PVC - e-chain® - fibre optic cable (FOC) for medium load requirements (class 4.2.2): oil-resistant.

Dynamic values:

Max. speed for e-chain® use:*** Unsupported: v = 3 m / s  Gliding (up to 10 m): v = 2 m / s

Max. acceleration for e-chain® use:*** a = 20 m / s²

*** These values are based on specific applications or tests. They do not represent the limit of what is technically feasible.

Typical lab test setup for this cable group:

- Test bending radius R: approx. 75 mm
- Test travel S: approx. 1 - 15 m
- Test period: min. 2 - 4 million double strokes
- Test speed: approx. 0.5 - 2 m / s
- Test acceleration: approx. 0.5 - 1.5 m / s²

Dynamic values:

Max. speed for e-chain® use:*** Unsupported: v = 3 m / s  Gliding (up to 10 m): v = 2 m / s

Max. acceleration for e-chain® use:*** a = 20 m / s²

*** These values are based on specific applications or tests. They do not represent the limit of what is technically feasible.

Typical lab test setup for this cable group:

- Test bending radius R: approx. 75 mm
- Test travel S: approx. 1 - 15 m
- Test period: min. 2 - 4 million double strokes
- Test speed: approx. 0.5 - 2 m / s
- Test acceleration: approx. 0.5 - 1.5 m / s²

Typical application areas:

- Preferably indoor applications, but also outdoor ones at temperatures > 5 °C.
- Wood/stone processing, packaging industry, supply system, handling, adjusting equipment.

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PVC - e-chain® - fibre optic cable (FOC) for medium load requirements (class 4.2.2): oil-resistant.

Technical tables:

### Mechanical values:

<table>
<thead>
<tr>
<th>Part no.</th>
<th>Number of fibres &amp; (Ø_fibre) [µm]</th>
<th>External diameter (d) [max. mm]</th>
<th>Copper index [kg / km]</th>
<th>Weight [kg / km]</th>
</tr>
</thead>
<tbody>
<tr>
<td>CFLG.2EC.62.5/125</td>
<td>2x62.5/125</td>
<td>7.5</td>
<td>---</td>
<td>60</td>
</tr>
<tr>
<td>CFLG.2EC.50/125</td>
<td>2x50/125</td>
<td>7.5</td>
<td>---</td>
<td>60</td>
</tr>
</tbody>
</table>

**** External diameters are maximum values and may tend toward lower tolerance limits.

### Optical characteristics:

<table>
<thead>
<tr>
<th>Fibre type</th>
<th>Wavelength</th>
<th>Bandwidth [MHz x km]</th>
<th>Line attenuation [dB / km]</th>
<th>Chromatic dispersion [ps / nm x km]</th>
</tr>
</thead>
<tbody>
<tr>
<td>62,5/125</td>
<td>850 nm</td>
<td>≥ 200</td>
<td>≤ 3.0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1300 nm</td>
<td>≥ 500</td>
<td>≤ 0.7</td>
<td></td>
</tr>
<tr>
<td>50/125</td>
<td>850 nm</td>
<td>≥ 500</td>
<td>≤ 2.5</td>
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</tbody>
</table>

### Construction table:

<table>
<thead>
<tr>
<th>No. of cores</th>
<th>Core stranding</th>
<th>Part no.</th>
<th>No. of cores</th>
<th>Core stranding</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>CFLG.2EC.62.5/125</td>
<td>CFLG.2EC.50/125</td>
<td></td>
</tr>
<tr>
<td>2x 62.5/125 µm (Ø_fibre)</td>
<td>FIBRE1</td>
<td>FIBRE2</td>
<td>2x 50/125 µm (Ø_fibre)</td>
<td>FIBRE3</td>
</tr>
</tbody>
</table>